

Examining several of these very curiously figur'd bodies (which are commonly thought to be Stones form'd by some extraordinary *Plastick* virtue latent in the Earth it self) I took notice of these particulars:

First, that these figured bodies, or stones, were of very differing substances, as to hardness: some of Clay, some Marle, some soft Stone, almost of the hardness of those soft stones which Masons call Fire-stone, others as hard as Portland stone, others as hard as Marble, and some as hard as a Flint or Crystal.

Next, they were of very differing substances as to transparency and colour; some white, some almost black, some brown, some Metalline, or like Marchasites; some transparent like white Marble, others like flaw'd Crystal, some gray, some of divers colours; some radiated like these long petrify'd drops, which are commonly found at the Peak, and in other subterraneous caverns, which have a kind of pith in the middle.

Thirdly, that they were very different as to the manner of their outward figuration; for some of them seem'd to have been the substance that had fill'd the Shell of some kind of Shel-fish; others, to have been the substance that had contain'd or enwrapp'd one of those Shells, on both which, the perfect impressiion either of the inside or outside of such Shells seem'd to be left, but for the most part, those impressiions seem'd to be made by an imperfect or broken Shell, the great end or mouth of the Shell being always wanting, and oftentimes the little end, and sometimes half, and in some there were impressiions, just as if there had been holes broken in the figurating, imprinting or moulding Shell; some of them seem'd to be made by such a Shell very much brused or flaw'd, insomuch that one would verily have thought that very figur'd stone had been broken or brused whilst a gelly, as 'twere, and so hardned, but within in the grain of the stone, there appear'd not the least sign of any such bruse or breaking, but onely on the very uttermost superficies.

Fourthly, they were very different, as to their outward covering, some having the perfect Shell, both in figure, colour, and substance, sticking on upon its surface, and adhering to it, but might very easily be separated from it, and like other common Cockle or Scolep-shells, which some of them most accurately resembled, were very dissoluble in common Vinegar, others of them, especially those *Serpentine*, or *Helical* stones were cover'd or retained the shining or Pearl-colour'd substance of the inside of a Shel, which substance, on some parts of them, was exceeding thin, and might very easily be rubbed off; on other parts it was pretty thick, and retained a white coat, or flaky substance on the top, just like the outsides of such Shells; some of them had very large pieces of the Shell very plainly sticking on to them, which were easily to be broken or flaked off by degrees: they likewise, some of them retain'd all along the surface of them very pretty kind of *futures*, such as are observ'd in the skulls of several kinds of living creatures, which *futures* were most curiously shap'd in the manner of leaves, and every one of them in the same Shell, exactly one like another, which I was able to discover plainly enough with my naked eye, but more perfectly and distinctly with my *Microscope*; all these

these *futures*, by breaking some of these stones, I found or boundings of certain *diaphragms*, or partitions, which the cavity of the Shell into a multitude of very proportional *cells* or *caverns*, these *Diaphragms*, in many of them, perfect and compleat, of a very distinct substance from the cavities, and exactly of the same kind with that which slide, being for the most part whitish, or mother-of-pearl.

As for the cavities between those *Diaphragms*, I found fill'd with Marle, and others with several kinds of stone, most part hollow, onely the whole cavity was usual with a kind of *tartareous* petrify'd substance, which stuck and was there shot into very curious regular Figures, other dissolv'd Salts are observ'd to stick and crystallize the containing Vessels; or like those little *Diamonds* which served to have covered the vaulted cavity of a Flint; cavities all lin'd with a kind of *metalline* or *marchasite*, which with a *Microscope* I could as plainly see most curiously figured, as I had done those in a Flint.

From all which, and several other particulars which I not but think, that all these, and most other kinds of stones are found thus strangely figured, do owe their formation not to any kind of *Plastick* virtue inherent in the earth, but of certain Shel-fishes, which, either by some Deluge, Inundation, or some such other means, came to be thrown together to be fill'd with some kind of Mudd or Clay, or with some other substance, which in tract of time has been further and hardned in those shelly moulds into those shapes, now find them; that the great and thin end of these Shells, which were broken off, or what ever other extraordinary cause it was that broke them, was broken off; and that many others were broken and disfigured; that these Shells which are thus separated with *Diaphragms*, were some kind of *Nautilus* or *Periwinkle*, and that others were shells of *Cockles*, *Muscles*, *Periwinkles*, of various sorts; that these Shells in many, from the partition containing or enclos'd Earth, or some other cause, have rotted and mouldred away, and onely left their impressiions containing and contained substances; and so left them within another, so that they may be easily separated by the use of a Hammer. That others of these Shells, according to the substances adjacent to them, have, by a long tract of time, been petrify'd and turn'd into the nature of stone, even now observ'd several sorts of Wood to be. That others may be found with one kind of substance within, and another without, having, perhaps, been fill'd in one place, and another in another, which I have very frequently observ'd in *Periwinkle*, and other shells, which I have found by the use of a *Microscope*, further, that some parts of the same Shell may be fill'd